

REMARKS

Favorable reconsideration and allowance of the subject application are respectfully requested. Claims 1-12 are pending in the present application, with claims 1 and 11 being independent. Claim 12 has been added by this amendment, which does not add any new subject matter.

Allowable Subject Matter

Applicants note with appreciation the Examiner's indication on page 3 of the outstanding Office Action that claims 1-10 are allowed. For at least the reasons detailed below, Applicants respectfully submit that all pending claims should be considered allowable.

Claim Rejections under 35 U.S.C. §103

The Examiner rejected claim 11 under 35 U.S.C. §103(a) as being unpatentable over *Lum* (US 6,312,175) in view of *Friend* et al. (US 6,497,368). This rejection is respectfully traversed at least for the foregoing reasons.

Independent claim 11 is directed to a keyboard housing comprising: an upper shell portion having inclined members for receiving a keypad thereon such that the keypad is inclined during operation thereof; a lower shell portion for attachably receiving

additional electrical components; a cover removably fixed to the lower shell portion; and a rising portion formed as a slot-shaped guide for a magnetic-card reader or a chip-card reader. Furthermore, the upper shell portion, the lower shell portion and the rising are integrally molded such that the keyboard housing is formed as one-piece.

Lum is directed to an integrated keyboard device that combines a combination of input peripheral devices. In other words, each POS (Point Of Sale) input peripheral takes the form of a modular device that may be readily interchanged with any other input device, see col. 4, lines 66-68. *Friend et al.* is directed to a portable data collection system employing a portable data terminal.

Applicants respectfully submit that the cited art, either alone or in combination (which combination Applicants do not admit to) fails to even remotely teach or suggest that an upper shell portion, a lower shell portion and a rising are integrally molded such that the keyboard housing is formed as one-piece, as recited in independent claim 11.

On page 2 of the outstanding Office Action, the Examiner acknowledges that *Lum* is "not formed as a single piece of plastic," the Examiner, however, concludes that the three portions (upper shell portion, lower shell portion, and the rising) are molded such that they match one another, and upon joining, form one piece.

Applicants respectfully submit that the Examiner failed to establish a prima facie case of obviousness. To establish a prima facie case of obviousness, three basic criteria must be met: (1) there must be some suggestion of motivation, either in the references themselves or in the knowledge generally available to one of ordinary skill in the art to modify the reference or to combine reference teachings; (2) there must be a reasonable expectation of success; and (3) **the prior art reference must teach or suggest all the claim limitations**, see *In re Vaeck*, 947 F.2d 48, 20 USPQ2d 1438 (Fed.Cir.1991), emphasis added. Therefore, because the cited art does not teach or suggest all of the claim limitations, the rejection is improper.

Furthermore, Applicants respectfully submit that the conclusionary statement made by the Examiner (that the upper shell portion, lower shell portion, and the rising are molded such that they match one another, and upon joining, form one piece) is not a proper basis to substantiate an obviousness rejection.

Recent Federal Circuit case law precedent makes it explicitly clear that the factual question of motivation is material to patentability and cannot be resolved on subjective belief and unknown authority, but must be read on the objective evidence of the record. Federal Circuit case law precedent further requires that "common sense and common knowledge" alone is improper evidence

in support of an obviousness rejection.

The Examiner purports a common sense and common knowledge reason for the deficiencies of *Lum*. However, common sense and knowledge are not objective evidence of record, as the Federal Circuit explains, but are in fact commensurate with subjective belief and unknown authority. Therefore, the Examiner has failed to meet the legal requirements to substantiate the obviousness rejection.

For an illuminating discussion on the burden placed on an Examiner to establish objective factual findings of record, the Examiner is referred to the recent Federal Circuit decision of *In re Lee*, 61 USPQ2d 1430 (CAFC 2002).

In re Lee involved an appeal of a decision of the Board of Patent Appeals in which Lee argued that the Examiner failed to provide a source of a teaching, suggestion, or motivation to combine the applied prior art to arrive at the claimed invention. The Board responded to these arguments by ruling that "[t]he conclusion of obviousness may be made from common knowledge and common sense of a person of ordinary skill in the art without any specific hint or suggestion in a particular reference." *Id.* at 1432. The Federal Circuit overturned the Board's decision "for failure to meet the adjudicative standards for review under the administrative procedure act." *Id.* at 1431. The Federal Circuit

further stated that "the factual inquiry whether to combine references must be thorough and searching...it must be based on objective evidence of record...[t]his precedent has been reinforced in a myriad of decisions and cannot be dispensed with." Id. at 1433. The Court also stated that the USPTO is "not free to refuse to follow Circuit precedent" and "cannot rely on conclusionary statements when dealing with particular combinations of prior art and specific claims." Id. at 1434.

As stated herein above, the Examiner's asserted modification for *Lum*, which is that "the upper shell portion, the lower shell portion, and the rising are molded such that they match one another...and upon joining, form one piece," and the lack of factual support thereof comports very closely to the analysis disapproved by the Federal Circuit in *In re Lee*. As such, the Examiner's failure to provide factual support for a teaching, suggestion or motivation to modify *Lum* constitutes legal error.

Furthermore, Applicants note that the courts have stated that "it is not inventive to make an article integral which in the prior art had been made in more than one piece, is in no sense a rule of universal application," see *In re Hubbell*, 76 USPQ 105, 107 (CCPA 1947). There are, however, exceptions: one piece can be made of two under circumstances where beneficial results admittedly are obtained that require more than the exercise of mere mechanical

skill," Id at 109. Additionally, the United States Supreme Court in *Potts v. Creager* stated that:

The apparent simplicity of a new device often leads an inexperienced person to think that it would have occurred to any one familiar with the subject; but the decisive answer is that with dozens and perhaps hundreds of others laboring in the same field, it had never occurred to any one before...[a]s was said by Mr. Justice Bradley, in *Loom Company v. Higgins*, 105 U.S. 580, 591: 'Now that it has succeeded, it may seem very plain to any one that he could have done it as well. This is often the case with inventions of the greatest merit.' 155 U.S. 597

The courts also affirmatively conclude that "where the article produced is novel, useful, and not anticipated by the prior art that it should be regarded as involving the element of invention, notwithstanding the simplicity of the inventive thought when once arrived at...is entitled to patent protection," *In re Hubbell* at 109.

As such, Applicants submit that integral molding of an upper shell portion, a lower shell portion, and a rising such that the keyboard housing is formed as one-piece is novel, useful, and not anticipated by the prior art.

To start with, multi-part housings, such as the device of *Lum*, require several injection molds and several injection procedures. This results in higher production costs, which are reflected in the price of a housing. An object of the present invention is to provide inexpensive housings that turn the product "Keyboard" into

an inexpensive product. The challenge was to design an injection mold with which to produce a one-piece housing especially for Point-of-Sale (POS) keyboards (having an elevated position for the card reader) and which can accommodate all models including the keyboard. It is therefore not obvious to one skilled in the art to progress from a multi-part keyboard housing, for instance, one that can be snapped together, to a one-piece unit.

Another advantage of the one-piece housing, apart from the lower production cost (and only one injection mold for all housings, despite differing keyboard concepts) is that it is easier to service. For instance, the housing no longer needs to be opened when a keyboard needs to be installed or replaced. It is sufficient to remove the keyboard, which is mounted to the upper housing shell with screws etc., which no longer extend through housing openings. The card reader is also easier to access, without requiring the separation of the housing parts.

It can be easily seen in *Lum* that the area containing the keys, e.g., the layout openings, are custom-fitted for the keys that hold the keyboard. Referring, for example, to Figs. 1B and 5A, of *Lum*, it can be clearly seen that the upper housing shell has an irregular layout opening pattern to accommodate the keyboard. Consequently, the upper housing shell is always dependent on the layout design of the keyboard, which in turn depends on its

function (keyboard for a computer, POS keyboard, keyboard for magnetic cards etc.).

This problem is circumvented with the one-piece housing and the design of an individual upper housing shell of the one-piece housing, as shown in Fig. 1 of the present invention. The upper housing shell has one shell, into which the complete keyboard is inserted and which does not require a customized keyboard layout opening.

In sum, because the cited art fails to teach or suggest all of the claim limitations and because the integrally molded one-piece housing is novel, useful, and not anticipated by the prior art, Applicant respectfully requests that the Examiner withdraw the rejection and indicate allowability of claim 11.

Lastly, new dependent claim 12 should be considered allowable at least for depending from an allowable base claim, and because none of the cited art teaches the combination of elements including that the keyboard housing is formed substantially in an S-shape.

Conclusion

In view of the above amendments and remarks, this application appears to be in condition for allowance and the Examiner is, therefore, requested to reexamine the application and pass the claims to issue.

Application No. 09/902,539

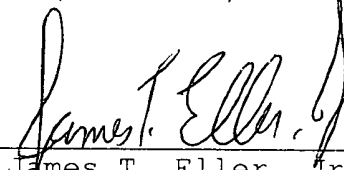
Should there be any outstanding matters that need to be resolved in the present application, the Examiner is respectfully requested to contact Martin R. Geissler (Reg. 51,011) at telephone number (703) 205-8000, which is located in the Washington, DC area.

If necessary, the Commissioner is hereby authorized in this, concurrent, and future replies, to charge payment or credit any overpayment to Deposit Account No. 02-2448 for any additional fees required under 37 C.F.R. §§ 1.16 or 1.17; particularly, extension of time fees.

Respectfully submitted,

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